

It is claimed:

1. A computer-implemented method for speech recognition of a user speech input, comprising the steps of:

receiving the user speech input that contains utterances from a user;

recognizing by a first language model at least a portion of the utterances from the user speech input, said first language model having utterance terms that form a general category;

selecting a second language model based upon the identified utterances from use of the first language model, said second language model containing utterance terms that are a subset category of the general category of utterance terms in the first language model; and

recognizing with the selected second language model utterances from the user speech input.

2. The method of claim 1 wherein a hierarchy of language models that progresses from general terms to specific terms is used to recognize the utterances from the user speech input.

3. The method of claim 2 further comprising the steps of:

selecting the first language model from the hierarchy of language models to recognize context of the user speech input;

selecting based upon the recognized context of the user speech input the second language model from the hierarchy of language models;

using the selected second language model to recognize specific terms within the user speech input;

using the recognized specific terms to select a third language model from the hierarchy of language models; and

using the selected second language model to recognize terms within the user speech input.

4. The method of claim 3 wherein the language models regard domains, wherein hierarchy of language models is organized based upon the domain to which a language model is directed.

5. The method of claim 4 wherein the language models are hidden Markov language recognition models.

6. The method of claim 3 further comprising the step of:

providing the recognized utterances of the user input speech to an electronic commerce transaction computer server in order to process request of the user input speech.

7. The method of claim 2 further comprising the step of:

using models within the hierarchy of language models for recognizing idioms in the user input speech.

8. The method of claim 1 wherein a web summary knowledge database stores associations between first terms and second terms, wherein the associations indicate that when a first term is used its associated second term has a likelihood to be present, wherein Internet web pages are

processed in order to determine the associations between the first and second terms, said method further comprising the step of:

using the stored associations to recognize the utterances within the user input speech.

9. The method of claim 1 wherein a phonetic knowledge unit stores the degree of pronunciation similarity between a first and second term, wherein the phonetic knowledge unit is used to select terms of similar pronunciation for storage in the second language model.

10. The method of claim 1 wherein a conceptual knowledge database unit stores word concept structure and relations, said method further comprising the step of:

using the stored word concept structure and relations to recognize the utterances within the user input speech.

11. The method of claim 1 wherein the recognized utterances are used within a telephony system.